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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/018,137	03/20/2002	Dan Akerfeldt	030481-0183	7034

7590 05/08/2003

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EXAMINER

ROBERTS, PAUL A

ART UNIT PAPER NUMBER

3731

DATE MAILED: 05/08/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/018,137

Applicant(s)

AKERFELDT ET AL. GL

Examiner

Paul A Roberts

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) ¹⁻¹¹1-10 is/are pending in the application.
- 4a) Of the above claim(s) 6 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 9 and 10 is/are allowed.
- 6) ☒ Claim(s) 1-3, 7 and 8 is/are rejected.
- 7) ☒ Claim(s) 4 and 5 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 1.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: .

DETAILED ACTION

Election/Restrictions

This application contains claims directed to the following patentably distinct species of the claimed invention:

Figure 6 and figure 13 are patentably distinct species.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, claims 1-4, and 7-10 are generic.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

During a telephone conversation with Glen Law on March 28, 2003 a provisional election was made without traverse to prosecute the invention embodied by figure 13, claims 1-5 and 7-10. Affirmation of this election must be made by applicant in replying to this Office action. Claim 6 is withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the

currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1, 2, 3, 7, & 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Erlebacher et al. US 5,350,399 in view of Sugarbaker et al. US -.
2. Erlebacher et al. ('Erlebacher') discloses a tool for sealing a puncture. The tool comprises two mating plugs 13 and 11. The distal plug 11 is inside the lumen. Element 12 is an elongated retracting means. The Erlebacher tool also discloses a mechanism (44) coupled to the retracting means for converting a movement of the tool proximally when the distal plug is anchored to a pushing movement for moving the proximal member in a distal direction. Regarding the stretching force F1, when the proximal plug member is pushed over notch 14, there is a momentary stretching force existing between 44 and 14 along 12. The Erlebacher tool does not disclose a gear mechanism. It is well known in the art that gears are often used to transfer force from a trigger to an actuator. Sugarbaker et al. teaches this type of mechanism in figure 8. The disclosed gear mechanism is used to change the direction of force. The Erlebacher device also uses a change in direction force via recess 32. At the time of the invention it would

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have been obvious to substitute the gear mechanism of the Sugarbaker et al. device for the Erlebacher recess 32 because using the well known Sugarbaker et al. gear device would function equally well as the Erlebacher recess.

3. Regarding claim 2, Erlebacher discloses a spring biased coupling means. Erlebacher discloses, "A spring wire 35 is also mounted in the trigger 28 to extend through the recess 32 and upwardly, as viewed, through an appropriate slot in the barrel 24 for purposes as described below. The spring wire 35 abuts against the head 33 on the stem 31 so as to transfer a pushing force on the head 33 and thus the positioner member 26 so as to push the member 26 in a direction out of the barrel 24 in order to expel the extra-arterial occluder 13 therefrom."

4. Regarding claim 3, the Erlebacher device does not constrain the wire 12 from distal movement when trigger 28 is the distal position from 25. At this position, if the device was moved away from the blood vessel, the spring bias means will release retracting means 12 to prevent lumen wall rupture.

5. Regarding claims 7 & 8, Erlebacher anticipates all the elements of these claims. The through bore is the gap shown between items 53 and 53 (there are two items 53 on figure 6.) The suture is 12 and serves as the retracting means.

Allowable Subject Matter

6. Claims 4 and 5 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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7. The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 4, the Erlebacher device comprises an inner and outer feeding mechanism for guiding the plugs, but the inner feeding means is not disposed in the outer feeding means's bore.

8. Regarding claim 5, while it is well known in the art to add a simple gear mechanism to a pistol device, it would not have been obvious to add all of the intricate details of applicant's gear mechanism that were recited in claim 5.

9. Claims 9 and 10 are allowed. The following is a statement of reasons for allowance:

10. Regarding claims 9 and 10, all of the structure in claims 9 and 10 is anticipated by Erlebacher. The step, withdrawing the tool to automatically activate the gear mechanism to draw the plug members together, is neither anticipated nor obvious over Erlebacher.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The use of a dual plug hemostat device is well known in the art. However the intricate gear mechanism of the applicant's device is not anticipated by the prior art. Other similar plug devices are listed below.

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5098433	Compression Bolt
6508828	Suture plug device
5342393	Dual plug device
5800436	Cranial plug device
6379363	Cranial plug device
6270500	Cranial plug device
5861003	Blood tube occulder
5433053	Tissue Fastener
5250049	Bone screw
6045551	Bone suture
4796612	Bone suture and clamp
5593422	Occlusion assembly
6425911	Tissue positioning device
6491714	Surgical tissue repair device
6024756	Septal closing device


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul A Roberts whose telephone number is (703) 305-7558. The examiner can normally be reached on 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Milano can be reached on 703-308-2496. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3590 for regular communications and (703) 305-3590 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0858.

Paul Roberts
May 1, 2003

PA


MICHAEL J. MILANO
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